

Herbicide resistance management strategies may not be enough to slow weeds' evolution, UK study suggests

Editor's note: In the study, the authors note that this research contrasts current industry advice and scientific literature on herbicide resistance management best practices

Scientists ... have identified factors which are driving the evolution of herbicide resistance in crops—something which could also have an impact on medicine as well as agriculture.

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In the new study, published in *Nature Ecology and Evolution*, researchers examined the evolution of herbicide resistance in black-grass (*Alopecurus myosuroides*) in the [United Kingdom].

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Lead author of the study Rob Freckleton, Professor of Population Biology from the University of Sheffield, said: “The driver for this spread is evolved herbicide resistance: we found that weeds in fields with higher densities are more resistant to herbicides.

“Once resistance has evolved it does not seem to go away: two years later, fields with high densities still had high densities, despite farmers employing a suite of different management techniques.

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The research offers important insights into diversifying management which is suggested as a possible technique for reducing the evolution of resistance. The study showed the technique will work to reduce resistance only if farmers reduce their inputs of herbicides. If they continue to use the same levels of herbicides or even increase their input, then this technique will not work.

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Professor Freckleton said: “The results were simple: farms that used a greater volume of herbicide had more resistance.”

[Editor's note: Read the [full study](#) (behind paywall)]

Read full, original post: [Scientists identify factors which drive the evolution of herbicide resistance](#)